Spring 2002 Volume 7, No. 2

The Coastal Plainer

3381 Skyway Drive, P.O. Box 311, Auburn, AL 36830
Phone: 334 887-4549 Fax: 334 887-4551
Homepage: //www.mo15.nrcs.usda.gov/

Welcome to Charles Love

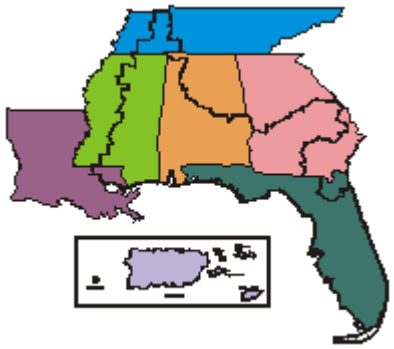
Charles L. Love was selected to serve as the State Soil Scientist for Alabama and as MLRA Team Leader for the Southeast Coastal Plain and Caribbean Soil Survey Region (MO–15), effective April 21, 2002. He is responsible for the direction and management of the soil survey quality assurance efforts for the MO–15 region and for technical leadership of the Alabama soil survey program.

Charles began his career with NRCS (formerly SCS) in 1977 as a soil conservationist trainee in Tennessee. As a soil scientist, he served in six locations in central and western Illinois (1979–1987). In 1987, he served as the soil survey project leader in Bowling Green, Missouri. He also served in one of the first positions as MLRA soil survey project leader in the State of Illinois (Springfield, Illinois; 1991–1996).

In 1994, Charles completed the Midwest Leadership Development Program (a one-year training commitment).

In 1996, Charles's career advanced to a position as soil data quality specialist on the Region 11 MLRA team at Indianapolis, Indiana. He provided technical leadership for MLRAs 94A, 94B, 96, 97, and 98—serving 85 counties in the lower peninsula of Michigan and the northern portion of Indiana. He was responsible for providing technical quality assurance for correlation, manuscript preparation, SSURGO certification, and training.

MLRA Soil Survey Region #15



He has also served in a variety of other capacities, including as an instructor of the course "correlation and management of MLRA soil surveys" (1999–2002) and as a member of various workgroups and steering committees within MO–11.

Prior to joining NRCS, Charles served as a forester technician aid with the Forest Service in the States of Washington, Oregon, and Wyoming (1974–1976).

Charles is certified as a professional soil classifier by ARCPACS and is a member of the Illinois Soil Classifiers Association (ISCA), the Indiana Soil Classifiers Association, the National Soil and Water Conservation Society (SWCS), and other organizations related to natural resources.

Charles is a native of Jackson, Tennessee. He earned a Bachelor of Science in Agronomy from Tennessee State University at Nashville in 1979.

He and his wife, Alice, have one daughter, Princess

Continued on page 2

In This Issue:

Love, continued from page 1.

Mildred Love. Charles, Alice, and Princess are looking forward to being a part of the conservation family of NRCS in Alabama and the southeast region.

Charles is a strong believer in the MLRA concept and approaches. He considers them an excellent vehicle to carry out the next generation of activities in the soil survey program. His hopes for maintaining the MLRA–15 soil survey mission and Alabama's technical soil service vision include:

- Continue the effort of establishing and staffing MLRA project offices throughout the MO–15 region.
- Continue progressive correlation activities to meet national standards.
- Maintain progressive digitization and map finishing to meet National SSURGO certification efforts.
- Utilize new publication technologies, such as CDs and SoilView.
- Work very closely with the MO–15 Board of Directors and Cooperators to strategically carry out soil survey and technical soil services to meet the soil survey program needs.
- Assist in maintaining an accurate soil database to help facilitate the 2002 Farm Bill.
- Provide training about soils to NRCS personnel to meet future efforts at natural resources management.
- Utilize new technologies, such as GIS, GPS, and ArcView, in the modernization and maintenance of MLRA based soil surveys.
- Continue to identify special studies to help strengthen our soil interpretations.
- Share brainstorming and soil survey techniques to meet the needs of internal and external customers.
- Market soil science and promote teamwork.

Charles L. Love, MO–15 Team Leader and Alabama State Soil Scientist.

Charles feels it is a great privilege to serve as State Soil Scientist/MLRA Leader under the leadership of Mr. Robert N. Jones, State Conservationist, and the Region 15 Board of Directors. He is looking forward to being a part of the soil survey team in Region 15.■

USDA

Compilation—To Ink or Sink

By Rick Zellmer, GIS Specialist

The Missouri Digitizing Unit (DU) and Ken Lubich have weighed-in on the choice of pen or pencil for map compilation. Pencil has been the preferred tool for compilation by many State Offices and vendors. Alabama is not an exception. I was very confident that the overlays we had done in pencil in Alabama and submitted to the DU were of excellent quality. However, in talking with Caryl Radatz, SSURGO/DMF Manager at the DU, I found out that we were part of the problem. Some of the overlays that we had sent to the DU required extensive cleanup after being scanned.

Compilation requires artistic abilities, good technique, and the proper tools. Whether a pen or pencil is used, the lines must be of uniform width and hue. If pencil is used, there is a greater chance for variation in the width and hue of the lines and for developing smudges. During scanning, the variations in pencil lines can create gaps that need to be closed during the cleaning process. With some of the overlays from Alabama, smudges also created problems that required spot digitizing by the DU. Not all pencils are created equally, and not all are suited for use on mylar. Although the penciled overlays looked good while we were reviewing them, by the time they were shipped to the DU and then to a vendor for scanning, the line quality had degraded and some smudging had developed.

Using pens for compilation eliminates some of the problems caused by using pencil. The time needed to clean up overlays can be 2.5 hours per quadrangle if pencil is used, while ink overlays have been done in 10 minutes per quadrangle.

The compilation tools recommended by the DU and Ken Lubich include a .18 millimeter Rapidograph pen and Rapidograph ink; a Sakura Microperm, 01; a .5 ml CF5-P1 pencil from US Direct; or the Draft/Matic DM05 pencil. The Rapidograph pen and ink provide excellent quality and write on the frosted mylar supplied by NCGC or on clear mylar. If clear mylar is used, the preferred product is JPF-4MO Crystal Clear Inkjet Film, 4 mil. The Sakura pen gives a heavier line than the Rapidograph pen but is easy to use. The Sakura pen can be obtained from various Web sites. The CF5-P1 and DM05 are for the die-hard pencil people. If you are going to put the soil symbols on the polygon overlay, check with the DU! States will be billed for the cost of unnecessary cleanup resulting from poor compilation or wrong tools.■

SCANing Alabama

By Douglas F. Clendenon, Soil Scientist

The Alabama A&M University's (AAMU) weather station project is a joint venture with the USDA-NRCS Soil Climate and Analysis Network (SCAN), NASA, et al. AAMU currently has two of its seven weather and soil temperature/moisture stations cranking out near real-time data. The data can be viewed on the Web at: http://www.wcc.nrcs.usda.gov/scan/Alabama/alabama.html. Eventually, we will also have soil descriptions and characterization data posted on the web for each site.

The Hytop site is near the community of Hytop (of course) and is in an area of Hartsells soil at an elevation of about 1,750 feet. The WATRS site is at the Winfred A. Thomas Research Farm of AAMU. It is in an area of Dickson soil at an elevation of about 750 feet.

When you visit the Web site, take a look at the weather and soil data. It shows a bunch of coded headings. The codes are described under the sensor label descriptions, but here is a quick rundown using the Hytop site as an example:

Time is always in Central standard or daylight savings. It adjusts automatically.

Hytop # 1. This data set is the above-ground stuff. All of it is weather-related.

- PCCTB: Cumulative precipitation in inches. This will reset October 1.

- ATHC: Hourly air temperature, current, Celsius
- ATHX: Hourly air temperature, maximum, Celsius
- ATHN: Hourly air temperature, minimum, Celsius
- ATHC: Hourly air temperature, average, Celsius
- SRHA: Solar radiation. This tells how much sun the site is getting. It varies with time of day and with passing clouds, eclipses, etc.
- WSPHA: Windspeed, hourly average, mph
- WDHA: Wind direction, azimuth off of north
- RH1C1: Relative humidity, current
- BPHGC: Barometric pressure, current

Hytop # 2 and Hytop # 3. These data sets contain soil moisture and temperature readings.

- c1 readings: All c1 readings are at the soil surface.
- c1smv: Soil moisture, volume, percentage
- c1tmp: Soil temperature, Celsius
- c1sal: Soil salinity
- c1rdc: Soil real dielectric constant. Use this to determine if the soil is frozen. Normally this value is a lower number. When freezing occurs, it goes up to 80 or 90. Partly frozen soil is at 40 or 50.
- c2 readings: Same as c1 readings, except at 4 inches deep
- c3 readings: Same as c1 readings, except at 8 inches deep
- c4 readings: Same as c1 readings, except at 20 inches deep
- c4 readings: Same as c1 readings, except at 1 meter (39 inches) deep. Note this site had bedrock at 39 inches.

Hytop # 4 This data set is the 24-hour average values. It is posted once each day. AT is air temp, etc. ENHUM is the humidity inside the equipment cabinet. This value is reported so we know if our desiccant is still working. LBAT is the strength of backup lithium battery.

If you study the data a little, you will be able to observe the soil recharge with moisture at different depths and follow runoff when it occurs.

We will eventually (when the soil dries up a little) have all seven sites up and running. We will also have 16 more soil temperature/moisture stations (without the weather apparatus) in Jackson, Madison, Limestone, Morgan, and Marshall Counties, Alabama. Some of the equipment has already been installed, and we plans to upgrade the stations to include weather apparatus in the future.■

Workforce Recruitment Program

By Sebastian Thomas, Disabilities Program Manager

One of the goals that I have set out to achieve as your Disabilities Program Manager is the recruitment of college students with disabilities through our Workforce Recruitment Program (WRP). This program was set up to help college students with disabilities find career jobs. It would say a lot about the State of Alabama if we were more involved in recruiting qualified students with disabilities to come to work for NRCS. USDA has hired three students from the WRP list, and one works for NRCS.■

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation, or marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD).

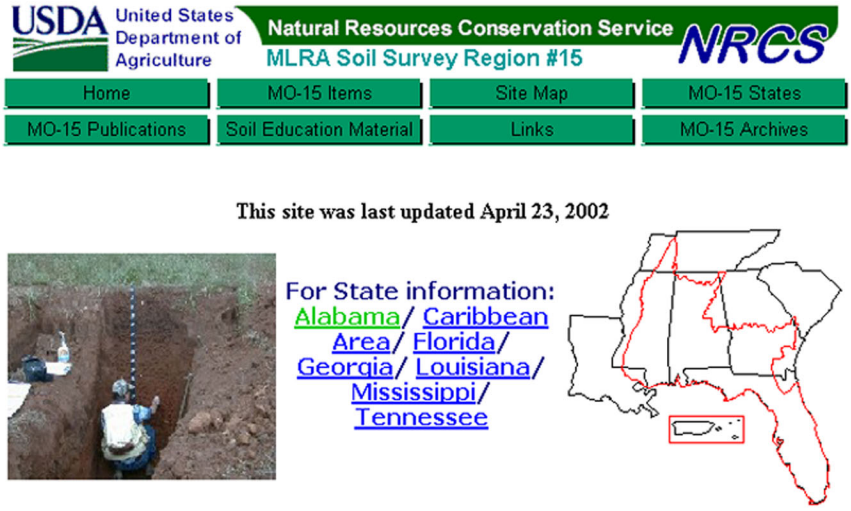
To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 1400 Independence Avenue, SW, Washington, D.C. 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

MO–15 Web Site: The URL has Changed

By Julie A. Best, Public Affairs Specialist for MO–15

The files for the MO–15 Web site are now housed on the WebFarm at Fort Collins. The new URL is: http://www.mo15.nrcs.usda.gov.

A new "Soils Education" page has been added. As I attend meetings, I often hear district conservationists comment that they need educational materials about soils to use with field day events and such. I attempted to pull together several sites that offer educational materials that would help them with these kinds of events. I selected a few, specific items and linked directly to those. There is, however, a world of information available on the page if you follow the links. As always, I used what I know. I'm sure there are other items that could be added. If you know of a good site that offers educational material about soils, send the URL along to me.■



The MO–15 Web site at http://www.mo15.nrcs.usda.gov/.

The United States Consortium of Soil Science Association

By Jim Culver, Past President of the Nebraska Society of Professional Soil Scientists

During the August 2000 meeting of the Nebraska Society of Professional Soil Scientists, we had a discussion regarding the fact that there are about 44 organizations similar to ours around the country. We realized that there was no common link for the organizations and there was no method for effectively sharing information and communications with the private sector. We reached a general consensus that the individual State societies and associations have excellent potential for working together in several areas.

During the 2000 annual meeting of the Soil Science Society of America, I visited with soil scientists from the Natural Resource Conservation Service, other Federal agencies, the National Association of Consulting Soil Scientists, and the Association of Women Soil Scientists and with leaders from the University National Cooperative Soil Survey. We discussed the opportunity for all of the State soil societies and associations to work together and to have an impact on common issues. Overall, the response was positive for a generalized process that would allow the organizations to share opportunities to promote our profession.

On January 3, 2001, a letter was sent to all State soil societies and associations, the Association of Consulting Soil Scientists, and the Association of Women Soil Scientists. The letter indicated that I would be willing to spend some time exploring options for our individual organizations to work together on common issues. The response to this invitation was very positive. Our first national teleconference was April 25, 2001.

Excellent progress has been made this past year in getting started. Most of the progress has been made through national teleconferences, questionnaires, and special work groups. The progress includes 1) stating goals and objectives, 2) updating directories, 3) gathering e-mail addresses for a contact at each organization, and 4) beginning development of a Web site. The Web site for the United States Consortium of Soil Science Association is at soilsassociation.org. It includes a list of all of the State soil societies and associations, each organization's official contact, the URL for those organizations who have a Web site, and the goals and objectives of the consortium. We are in the process of posting the minutes of all teleconferences. Other sections on the consortium's site include "Who We Are," "What's New," "Membership and Addresses," and "Congressional Contacts."

During the past year, the consortium has held 5 teleconferences. The minutes for these conferences have been sent by e-mail to all 44 organizations. Plans for this year include continued work on the Web site, the development of a newsletter, and the production and distribution of an informational brochure that describes the consortium.

Our goals are to promote communications between the State societies and associations and to promote the visibility of these organizations. Common issues that the organizations share include soil interpretations and the acquisition and application of soil survey data. Highlighted is emphasis on outreach to the general public and elected decision makers. The outreach hopes to promote the wise use of science-based soil survey information for the protection and management of the Nation's soil resources.

> "We realized that there was no common link for the organizations and there was no method for effectively sharing information and communications with the private sector."

The consortium's current objectives to assist in collectively working toward the goals are:

1) Enhance communications and networking among the societies and associations;

2) Outreach to the general public and decision makers;

3) Technical issues: Policy, applications, operations, and science;

4) Listing of available training and workshops;

5) Information on potential available contacts for obtaining soil consulting services;

and

6) Professional recognition.■

Editor's Note

Issues of this newsletter are available on the Internet on the MO–15 homepage (http://www.mo15.nrcs.usda.gov/). Click on "MO–15 Items" and then on "The Coastal Plainer, Quarterly Newsletter."

You are invited to submit stories for future issues to Aaron Achen, editor, MO–15, Auburn, Alabama. Voice—(402) 437-4157; FAX—(402) 437-5336; e-mail—Aaron.Achen@nssc.nrcs.usda.gov.■

"Productive land must assume an ever more prominent position in the thinking of the people and their leaders."

–Hugh Hammond Bennett